REMARKS:

Reconsideration and allowance of the claims in the application are requested.

Applicants' attorney thanks Primary Examiner Sam Rimell and Examiner Neveen Abel Jalil for the courtesy of a personal interview conducted September 1, 2004. Independent claims 1, 22, 25, 26, 27, 36, 46, and 51, were discussed. The Examiners agreed that incorporating further limitations in the claims relating to (1) specific database structure; (2) digital signatures for data security, and (3) metadata vectors characterizing the current state of the wireless device may distinguish over Robarts, the cited art.

1. Status Of Claims:

Claims 1-62 pending in the application have been rejected under 35 USC 102(e) as anticipated by Robarts, of record

Applicants respond to the rejection, as follows:

II. Summary Of Claim Amendments:

A. Claim 1 has been amended to overcome the rejection under 35 USC 112/2, and incorporate a description of the database structure.

B. Claim 22 has been amended to overcome the rejection under 35 USC 112/2 and incorporate a description of the database structure and the limitation of claim 1 "without user identification".

C. Claim 25 has been amended to incorporate a description of the database structure; a metadata vector and include the limitation of claim 1 "without user identification".

D. Claim 26 has been amended to incorporate a description of the database structure; a metadata vector; a data security feature and include the limitation of claim 1 "without user identification" of claim 1.

E. Claim 27 has been amended to include the metadata vector and the data security feature.

F. Claim 36 has been amended to overcome the rejection under 35 USC 112/2 and incorporate the database structure description and the limitation of claim 1"without user identification

G. Claim 46 has been amended to incorporate a description of the database structure and the metadata vector

H. Claim 51 has been amended to incorporate a description of the database structure; the metadata vector; the data security feature and include the limitation of claim 1 "without user identification".

I. Claim 62 has been amended to overcome the rejection under 35 USC 112/2 and the dependency to claim 1.

III. Responses To Indicated Paragraphs Of The Rejection:

A. Paragraph 1:

The Examiner's comments are noted.

B. Paragraph 2:

Applicants' have checked claim 55, which reads in Office Paper 3, as follows:

--"55. (New) The system of Claim 26 further comprises:

The database includes context-activity pairs and related service recommendations;

a privacy control block controlling access of applications to private context information; and

the output device provides alternative recommendations to the user."--

The term "database' is not capitalized and applicants' request the objection be withdrawn.

C. Paragraphs 3/8:

Applicants have corrected claims 1, 22, 36 and 62, per the Examiner's instruction. Withdrawal of the rejection of claims 1, 22, 36 and 62 under 35 USC 112/2 is requested.

D. Paragraphs 9/10:

Applicants provide further comments to the arguments distinguishing Claims 1 – 62 from Robarts submitted in Office Paper 3, as follows:

1. Claims 1, 22, 25, and 26

(i) "searching a database of recommendations using the context-activity pair without user identification wherein the database comprises a table listing context-activity pairs each related to (i) a listing of service recommendations and (ii) a listing of number times recommended for each service recommendation"

The reference requires user personal information in the database for recommendations, as evidenced by Figures 12 A – 12H, whereas, Salmenkaita excludes user personal information for recommendations, as evidenced by the specification at page 11, lines 40-44, and the Browser 102 shown in Figure 1D. The reference discloses excluding the database to others and fails to disclose excluding the identity of the user to the database. Moreover, the reference fails to describe the database structure upon which recommendations are based.

The reference fails to support the rejection of claim 1 under 35 USC 102(e). Withdrawal of the rejection and allowance of claims 1, 22, 25, 26 36 and 46 are requested

2. Claims 2 and 23:

Claims 2 and 23 further limit claims 1 and 22, respectively and are patentable on the same basis as independent claims 1 and 22 from which they depend.

3. Claims 3 and 24:

Claims 3 and 2 further limit claims 1 and 22, respectively and are patentable on the same basis as independent claims 1 and 22 from which they depend.

4. Claims 4-7:

Claims 4 – 7 further limit claim 1 and are patentable on the same basis independent claim 1 from they depend.

5. Claims 9 and 37:

Claims 9 and 37 further limit claims 1 and 36, respectively and are patentable on the same basis as independent claims 1 and 36 from which they depend.

6. Claims 10, 20 and 38:

Claims 10, 20 and 38 further limit claims 1 and 36 are patentable on the same as independent claims 1 and 36 from which they ultimately depend.

7. Claims 11 and 39:

Claims 11 and 39 are patentable on the same basis as independent claims 1 and 36 from which they ultimately depend.

8. Claims 12, 29 and 40:

Claims 12, 29 and 40 are patentable on the same basis as independent claim 1, 27 and 36 from which they ultimately depend.

9. Claims 14, 31 and: 42:

Claims 14, 29 and 40 are patentable on the same basis as independent claim 1, 27 and 36 from which they ultimately depend.

10. Claims 15 and 43:

Claims 15 and 43 are patentable on the same basis as independent claim 1 and 36 from which they ultimately depend.

11. Claims 16, 32 and 44:

Claims 16, 32 and 44 are patentable on the same basis as independent claim 1, 27 and 36 from which they ultimately depend.

12. Claims 17, 33 and 45:

Claims 17, 33 and 45 are patentable on the same basis as independent claim 1, 27 and 36 from which they ultimately depend.

13. Claims 18 and 34:

Claims 18 and 34 are patentable on the same basis as independent claim 1 and 27 from which they ultimately depend.

14. Claim 19:

Claim 19 is patentable on the same basis as independent claim 1 from which it ultimately depend.

15. Claim 21:

Claim 21 is patentable on the same basis as claim 1 from which it depends.

16. Claim 26:

(i) "a database coupled to the context inference engine, for providing recommendations using the activity and current result without user identification without user identification wherein the database comprises a table listing context-activity pairs each related to (i) a listing of service recommendations and (ii) a listing of number times recommended for each service recommendation"

Claim 26 is patentable on the same basis as claim 1.

17. Claim 27:

(i) "a sensor in the wireless device for providing sensor signals as a metadata vector which represents the current sensor signals and characterizing a current environment of the wireless device; appending a message authentication code and digital signature to insure the integrity of the metadata vector;"

Applicants can find no disclosure in Robarts describing sensor signals as a metadata vector for characterizing the wireless device. Further, there is no disclosure describing appending a MAC and digital signature to a metadata vector for data integrity purposes. Claim 28:

Claim 28 depends from claim 27 and is patentable on the same basis as claim 27.

18. Claim 35:

Claim 35 is patentable on the same basis as claim 27 from which it ultimately depends.

19. Claim 36:

(i) "a database coupled to the context inference engine, for providing recommendations using the activity and current result without user identification without user identification wherein the database comprises a table listing context-activity pairs each related to (i) a listing of service recommendations and (ii) a listing of number times recommended for each service recommendation;"

Claim 36 is patentable on the same basis as claim 1.

20. Claim 46:

(i) "wherein the database comprises a table listing context-activity pairs each related to (i) a listing of service recommendations and (ii) a listing of number times recommended for each service recommendation"

Claim 46 is patentable on the same basis as claim 1.

21. Claims 47- 50:

Claims 47-50 depend from and are patentable on the same basis claim 46.

22. Claim 51:

(i) "searching a database of recommendations using the context-activity pair information without user identification wherein the database comprises a table l listing context-

activity pairs each related to (i) a listing of service recommendations and (ii) a listing of number times recommended for each service recommendation;:

The Examiner noted:

(i) Robarts describes "searching a set of related service history items from a history log using the set of context-activity pairs: Actually Robarts describes in [0182] that information may be gathered by a database query, however, this does not describe searching of service history items from a history log using context-activity pairs.

(ii) Robarts describes in [0204] accessing and storing information by privacy, security and permission information; this does not describe searching of service history items from a history log using context-activity pairs.

(iii) Robarts describes "forming context-activity pair information from the set of context-activity pair and the Set of related service history items". Actually, in [0245] Robarts describes using context activity pair information to "give a user constant attention in order to watch for behavior that matches a rule or profile", whereas, the claim just describes forming a context-activity pair information.

(iv) Robarts describes in [0247] "Some existing systems have also employed implicit models of the user and environment in order to provide various functionality" and further, "For example, an implicit model could discover that there is a recent strong correlation between a user's changing of traffic lanes followed by a changing of the radio station." This does not describe forming of context-activity pair information but just using a context-activity pair information.

(v) Robarts describes in [02080] "a manner, users can ask for an explanation of the proposes suggestion/task." This does not describe forming of context-activity pair information but just using a context activity pair information. Further, Salemenkaita forms context-activity pair from the current-context result and related service history items. Robarts does not teach this feature.

(vi) Robarts describes "searching a database of recommendations using the context-activity pair information". Actually, Robarts describes in [0066], characterizing the user's context with respect to attributes that are not directly observable. However, this does not describe searching a database or recommendations using the context-activity pair information.

(vii) Robarts in [0200] describes user interface displaying other categories of information. However, this does not describe searching a database of recommendations using the context-activity pair information.

(viii) Robarts in [0204-0206] describes usage of Privacy, Security, and Permission information. However, this does not describe searching a database of recommendations using the context-activity pair information.

Summarizing, claim 51 is patentable on the same basis as claim 1. Further, the reference fails to disclose the limitations set forth above, and does not support the rejection of claim 51 under 35 USC 102(e).Withdrawal of the rejection and allowance of claim 51 are requested

23. Claim 52:

The Examiner noted:

(i) Robarts describes "forming a database of context-activity pairs and related service recommendations in a remote server". Actually, Robarts describes in [0193-094] user interface to allow a user to explicitly modify the themes that are part of the current theme set. This does not describe forming a database of context-activity pairs and related service recommendations in a remote server.

(ii) Robarts describes in [0195-0197] user interface for a user to explicitly specify context information about themselves. However, this does not describe forming a database of context-activity pairs and related service recommendations in a remote server.

(iii) Robarts describes in [0005] that existing computer systems lack information about a user's current context; they cannot provide information appropriate to that context or anticipate likely changes in the context. Salmenkaita solves this problem by forming a database of context-activity pairs and related service recommendations in a remote server. However, Robarts does not describe forming a database of context-activity pairs and related service recommendations in a remote server.

(iv) Robarts describes "matching context-activity pairs in the database similar to the pair received from the context inference engine". Actually, Robarts describes in [0218] that "sub-component receives notifications or other context information related to users, and uses the stored user/group categorization information and/or theme categorization information to determine whether any of the themes or other them-related information should be provided to

those user". Whereas, Salmenkaita describes matching of similar context-activity pairs. It should be noted that a concept of a context-activity pair is different than a concept of a theme. Here the context-activity pair is used for creating and presenting similar information (e.g. recommendations) within a them.

(v) Robarts describes in [0159] "in order to use information about a current theme to present appropriate information and functionality, it is first necessary to identify a them that matches the current context" and in [0160] "... any changes in the modeled context can cause the current them to no longer match the current context and/or cause another theme that did not match the previous modeled context to now match the current context". However, in Salmenkaita the matched context-activity pairs are used to provide information (e.g. recommendations) within the same them not to change between themes.

(vi) Robarts describes in [0254-0256] "providing alternative recommendations to the user for selection of context-activity using a recommendation algorithm in response to the searching step. Actually, Robarts describes "usefulness of computers can be greatly improved by combining a symbolic model of human context with machine-learning algorithms that propose appropriate computer actions," whereas, Salmenkaita teaches providing recommendations for the selection of a context-activity pair in response to the searching step by a user.

(vii) Robarts describes that "Some existing systems have also employed implicit models of the user and environment in order to provide various functionality. These models can include predictive and inference mechanisms that allow pattern recognition and predictions of next user states" but further notes that "These systems have a problems," This problem does not exist in Salmenkaita because the selection of the context-activity pair is done in response to the searching step indicated by a user.

Summarizing, the reference fails to disclose the limitations set for the above, and does not support the rejection of claim 52 under 35 USC 102(e). In any case claim 52 depends from and is patentable on the same basis as claim 1. Withdrawal of the rejection and allowance of claim 52 are requested.

24. Claim 53, 54, 55, 56, 57 & 58:

See the Remarks discussed above with regard to claim 52.

25. Claim 59:

The Examiner noted:

(i) Robarts describes "at least one source of services matching the context-activity pair received from the wireless device." Actually, Robarts describes in [0159] "in order to use information about a current theme to present appropriate information and functionality, it is first necessary to identify a theme that matches the current context" and in [0160] "... any changes in the modeled context can cause the current theme to no longer match the current context and/or cause another them that did not match the previous modeled context to now match the current context". This does not describe source of services matching the context-activity pair received from the wireless device.

The reference fails to disclose the limitations set for the above, and does not support the rejection of claim 59 under 35 USC 102(e). In any case, claim 59 is patentable on the same basis as claim 27 from which it ultimately depends. Withdrawal of the rejection and allowance of claim 59 are requested.

26. Claim 60:

Robarts at [0326] describes a mentoring routine for the user, not an application program processing recommendations without showing the recommendation to the user. Mentoring involves showing recommendations to the user.

Robarts fails to disclose the limitation of claim 60, and does not support the rejection under 35 USC 102 (e). In any case, claim 60 is patentable on the same basis as claim 1 from which it ultimately depends. Withdrawal of the rejection and allowance of claim 60 are requested.

27. Claim 61:

Robarts at [0234 -0235] describes creating new themes, not new recommendations, as described in the specification at page 10, line 40 continuing to page 11, line 15. Robarts discloses creating new themes, and fails to describe creating new recommendations with respect to context activity pairs or themes. In any case, claim 61 is patentable on the same basis as claim 1 from which it ultimately depends. Withdrawal of the rejection and allowance of claim 61 are requested.

28. Claim 62:

Robarts at [0051-0052] describes a user computer communicating with individual sensors, not a metadata vector, described in Salmenkaita, as including the current sensor signals; the current state of the wireless device and the context activity pair. Paragraphs [0054 and 0069] describe the individual sensor signals received by the user body mounted computer. Applicants can find no disclosure combining the sensor signals with other information as a metadata, as described in the specification at page 11, lines 26 – 34. Robarts fails to disclose a metadata vector, and does not support the rejection under 35 USC 102 (e). In any case, claim 62 is patentable on the same basis as claim 1 from which it depends. Withdrawal of the rejection and allowance of claim 62 are requested.

E. Paragraph 11:

Applicants respond to the Examiner's arguments, as follows:

a Argument 1:

The cited paragraphs describe a computer presenting the user with alternate themes and not alternate recommendations for implementing a context-activity pair (theme).

b. Argument 2:

The cited paragraphs describe different themes applicable to the user in transitioning from one activity to another and different attributes related to the transition themes. None of the cited paragraphs describe presenting different recommendations for a user in a context-activity state, as described in the specification at page 10, lines 15 – 38.

c. Argument 3:

The cited paragraphs describe permission information used to specify types of activities different users can engage in with respect to a theme; privacy information for storing data generated while a theme is active and security information to control the various types of access. The reference fails to disclose a privacy control block, which appends a message authentication code and digital signature to a program to verify the program is entitled to access a user's context data or private data, as described in the specification at page 15 lines 8 – 14.

d. Argument 4:

The cited paragraphs describe an implicit model providing predictions of computer actions for a user, where the predictions require verification before acceptance. A prediction is not equivalent to a recommendation(s) for a specific context–activity pair as provided by a recommendation algorithm described in the specification at page 10, lines 30 – 38.

IV. Summary:

None of the Examiner's rebuttal argument serve to show that Robarts, a contextual response system based on automated learning techniques and providing a user with computer action related to user activity described by a theme, is not the same as or even related to the recommendation system of Salmenkaita described in claims 1 - 62. First, Robarts does not provide alternate recommendations to a specific context-activity pair. Second, Robarts does not protect the privacy of the user with respect to a recommendation or computer action. Third, Robarts does not provide new recommendations for a specific context activity pair. Fourth, Robarts does not generate a metadata vector for determining a recommendation or computer action. Fifth, Robarts does not create a service history for statistical purposes and subsequent consideration by other context-activity pairs.

Without such disclosure the rejection of claims 1 – 62 under 35 USC 102 (2) is without support, and claims 1 – 62 should be allowed.

CONCLUSION:

Having distinguished claims 1 – 62 from the cited reference based on (1) searching a database of recommendations using the context-activity pair information without user identification wherein the database comprises a table listing context-activity pairs each related to (i) a listing of service recommendations and (ii) a listing of number times recommended for each service recommendation;(2) a metadata vector which represents the current sensor signals characterizing a current environment of the wireless device with a current context result, and (3) appending a message authentication code and digital signature to insure the integrity of the metadata vector, and rebutted the Examiner's arguments relating to claims 51-62 and the arguments 1-4 in Office Paper 3, applicants submit the application has been placed in condition allowance. Entry of the amendment, allowance of the claims and passage to issue of the case are requested.

AUTHORIZATION:

The Commissioner is hereby authorized to charge any fees or insufficient fees or credit any payment or overpayment associated with this application to Deposit Account No. 13-4503, Order No. 4208-4012US1.

Respectfully submitted,

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